File name: Supplementary Movie 1

**Description:** Animation of the twist of the coiled coil C-terminal domain induced by the binding of **ML277 to xKCNQ1-CaM.** KCNQ1 is shown in gray, one protomer is highlighted in blue, CaM has been removed for clarity and ML277 is shown in orange surface. The binding of ML277 on xKCNQ1- CaM leads to a twist of the coiled coil C-terminal domain (Fig. 3). The animation was prepared with Chimera using the Morph Conformations tool.